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Determinants of Aggression Toward Sexual Minorities in a Community Sample

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Abstract

Objective—Sexual prejudice and masculine gender role stress were examined as mediators of the associations between adherence to different male gender norms and aggression toward sexual minorities. This study also sought to extend past research to a community sample and employ multiple methods to assess aggression.

Method—Participants were 199 heterosexual men between the ages of 18–30 who were recruited from a large southeastern United States city. Participants completed measures of adherence to male gender role norms, sexual prejudice, masculine gender role stress, and aggression toward sexual minorities.

Results—Associations between adherence to the status and antifemininity norms and aggression toward sexual minorities were mediated by sexual prejudice, but not masculine gender role stress. The portion of unique association between adherence to the antifemininity norm and aggression toward sexual minorities was about three times larger than the portion mediated by sexual prejudice and masculine gender role stress.

Conclusions—Findings provide the first multivariate evidence from a community-based sample for determinants of aggression toward sexual minorities motivated by gender role enforcement. These data support intervention programming and preventative intervention studies aimed at reducing sexual prejudice and facilitating less stereotypic attitudes about the male gender role, particularly surrounding the antifemininity norm.

Keywords

Aggression; Masculinity; Sex Roles; Homosexuality (Attitudes Toward); Masculine Gender Role Stress

Aggression and discrimination toward sexual minorities is a widespread phenomenon observed in numerous countries and cultures (NCAVP, 2007; Takács, 2006). In the United States, an estimated 20% of sexual minority adults suffer a person or property crime, and approximately 50% are verbally insulted or abused, because of their sexual orientation (Herek, 2009). More strikingly, however, are data which indicate that victims of hate crimes based on sexual orientation suffer a greater severity of violence and experience more

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detrimental personal and psychological effects than victims of other bias-motivated (Dunbar, 2006) and nonbiased assaults (Herek, Gillis, & Cogan, 1999). To inform the development of interventions aimed at reducing these attacks, the identification of perpetrator risk factors is critical. A great deal of research has been dedicated toward this aim, and recent survey (Parrott, Peterson, Vincent, & Bakeman, 2008) and laboratory research (Parrott, 2009) has delineated risk factors associated with a well-accepted theory of aggression toward sexual minorities – gender role enforcement – in undergraduate male populations. The purpose of the present study was to extend prior research on the effects of multiple risk factors associated with gender role enforcement in college samples to a nonprobability, racially diverse community sample of young adult men.

Aggression Toward Sexual Minorities as Gender Role Enforcement

Gender role enforcement theory posits that aggression toward male and female sexual minorities functions to make clear distinctions between male and female gender roles (Herek, 1986; 1988). In short, bias-motivated aggression toward sexual minorities serves a social-expressive function that “defines group boundaries” (Herek, 1986; p. 573) and enforces a rigid gender role dichotomy. This bias pertains to the enforcement of male and female gender norms and thus applies to aggression toward male and female sexual minorities. However, this bias is particularly insidious regarding the enforcement of male, relative to female, gender role norms, and likely explains why 60–75% of hate crimes based on sexual orientation are directed toward gay or transgender men (Federal Bureau of Investigation, 2006). Men’s enforcement of male gender norms functions primarily to affirm the perpetrator’s masculine identity, which is defined in part by that which is not feminine (e.g., Brannon, 1976; Kite, 2001). As such, the most critical component of one’s masculine identity is arguably “the renunciation of the feminine” (Kimmel, 1997; p. 230). However, because men equate homosexuality with femininity (Kimmel, 1997), men’s rejection of femininity is synonymous with their rejection of homosexuality (regardless of the sexual minority person’s gender).

It has been argued that the association between endorsement of traditional male gender norms and aggression toward male and female sexual minorities is accounted for by (a) negative attitudes toward sexual minorities (i.e., sexual prejudice), and (b) a tendency to experience negative effects from adhering to prescribed standards of masculinity (i.e., masculine gender role stress). As reviewed elsewhere (e.g., Parrott, 2008, 2009; Parrott et al., 2008), *sexual prejudice* and *masculine gender role stress* function to reinforce one’s status as a heterosexual male (Herek, 2000a) and to repudiate femininity (Kimmel, 1997; Parrott, Adams, & Zeichner, 2002). Pertinently, there is also some research to suggest that sexual prejudice is more prevalent in the African American community (e.g., Brandt, 1999; Lewis, 2003), perhaps because African Americans’ disadvantaged minority status fosters the perception of sexual minorities as a threat to cultural values and beliefs (Stephan, Ybarra, & Morrison, 2009). Perception of threat may then facilitate sexual prejudice to bolster social status. Collectively, this literature suggests that adherence to traditional norms of masculinity, particularly the status and antifemininity norms, facilitates the development of sexual prejudice and masculine gender role stress which, in turn, increases heterosexual men’s risk of aggression toward male and female sexual minorities. Research provides tentative support for this view. For instance, recent studies in the United States with mostly White samples provide evidence that extreme adherence to masculine gender norms and masculine gender role stress are positively associated with aggression toward male and female sexual minorities (Parrott & Zeichner, 2008; Talley & Bettencourt, 2008; Vincent, Parrott, & Peterson, in press; Whitley, 2001). Studies with mainly White samples in the United States have also established sexual prejudice as a key determinant of aggression toward male and female sexual minorities (Bernat, Calhoun, Adams, & Zeichner, 2001;

Franklin, 2000; Parrott & Peterson, 2008; Parrott & Zeichner, 2005; Roderick, McCammon, Long, & Allred, 1998).

Limitations of Existing Research

Several limitations in the extant literature must be addressed to provide better support for this theoretical model before prevention and treatment interventions based on it are developed. First, existing studies have provided only piecemeal support for this theoretically-based pathway. Two recent studies that investigated the effects of all variables using structural equation modeling (Parrott et al., 2008; Parrott, 2009) are promising. These two studies recruited racially diverse samples of undergraduate men in the United States and assessed their endorsement of masculinity norms, sexual prejudice, and masculine gender role stress as well as laboratory-based anger and physical aggression toward a gay male (Parrott, 2009) or anger in response to an interviewer-administered vignette depicting male-male intimate behavior (Parrott et al., 2008). Results generally confirmed that heterosexual men's adherence to the status and antifemininity norms was associated with heightened anger and aggression toward gay men and that these effects were partially accounted for by sexual prejudice. These data provide compelling support for (a) endorsement of the status and antifemininity norms as determinants of negative responses (including aggression) toward sexual minorities and (b) identification of sexual prejudice as a potential mediator of these effects. However, a striking difference in the results of these two studies involved the influence of masculine gender role stress. Specifically, masculine gender role stress did not account for the effects of status and antifemininity on anger or aggression toward gay men in the laboratory-based study (Parrott, 2009) but did account for the effect of these norms on anger in the interviewer-administered survey study (Parrott et al., 2008). Thus, data suggesting that masculine gender role stress accounts for the relation between male role norms and negative responses toward sexual minorities are decidedly mixed.

Second, because prior studies have relied exclusively on undergraduate samples, it remains unclear whether these findings, and the theoretical framework they support, extend beyond college populations. To enhance the generalizability of results from extant studies, a logical next step is to examine data from nonprobability community samples. Such data have the potential to justify research with larger probability samples that can establish an empirical basis for behavioral and social interventions aimed at reducing these attacks. Third, prior studies have assessed aggression toward sexual minorities using a single outcome measure (e.g., a self-report questionnaire, a laboratory aggression paradigm). As such, studies are needed that employ multiple methods to assess the same construct. To the extent that results of such studies converge, confidence in the validity and interpretations of results will increase (Brewer, 2000; Campbell & Fiske, 1959; Shadish & Cook, 2002).

The Present Research

The current investigation sought to examine the above noted theoretically-based pathway in a diverse, nonprobability community-based sample of young adult men using both written and verbal self-report measures of aggression toward male and female sexual minorities. In doing so, we aimed to provide new data that would address the reviewed limitations of previous laboratory- and survey-based research. Study hypotheses are enumerated below.

1. Sexual prejudice would account for the associations between adherence to status and antifemininity masculine norms and aggression toward sexual minorities.
2. Adherence to the antifemininity norm was expected to exert the strongest direct and indirect influence on aggression toward sexual minorities.
3. Because past research on masculine gender role stress as a mediator of the associations between adherence to male role norms and aggression toward sexual

minorities is equivocal, this study sought to explore these associations in a community sample.

Method

Participants

The distinct set of hypotheses tested herein utilized data that were drawn from a larger investigation on the effects of alcohol on aggression toward sexual minorities (Parrott, Gallagher, Vincent, & Bakeman, in press). Thus, although the focus of the present investigation did not examine alcohol-related effects, all participants who presented to the laboratory reported consuming alcohol on at least one occasion during the past year. All participants were recruited via newspaper advertisements in Atlanta, GA using the following wording: "Males age 18–30 needed for 1.5 to 2 hour study on drinking behavior and social attitudes. Earn \$25." Eligible for participation were self-identified heterosexual men between 18 and 30 years of age who had consumed at least one alcoholic beverage during the past year. Men in this age range were recruited because assailants of sexual minorities are typically young men in their early twenties (Dunbar, 2003; NCAVP, 2007). Because the metropolitan catchment area comprises a high African American population (57% per 2006 Census estimate), we sought to obtain a sample with approximately equal representation of White and African American men. Telephone screening confirmed the eligibility of 241 men based on these criteria. Upon arrival to the interview session, these eligibility criteria were confirmed again and resulted in the exclusion of five participants. In addition, a heterosexual orientation was confirmed further by responses to the Kinsey Heterosexuality-Homosexuality Rating Scales (KRS; Kinsey, Pomeroy, & Martin, 1948). Based on the recommendations of Savin-Williams (2006), 37 additional self-identified heterosexual participants were excluded from subsequent analyses because they did not endorse exclusive sexual arousal to females and sexual experiences that occurred mostly or exclusively with females. Informed consent was obtained from all participants. This study was approved by Georgia State University's Institutional Review Board.

The final sample ($N = 199$) consisted of 96 Black or African American, 96 non-Hispanic White, 1 American Indian or Alaska Native, 1 Hispanic White, and 5 men who indicated more than one race; except for the one Hispanic White participant, all reported they were non-Hispanic. The mean age was 24 years ($SD = 3.2$); most were single and never married (79%) with at least a high school education (92%). Non-Hispanic Whites compared to African Americans were younger ($M = 23$ vs. 25 years, $t(190) = 5.1$, $p < .001$) and reported more education ($Md = 14.6$ vs. 13.6 years, $p = .011$ per Mann-Whitney U) and income ($Md = \$28,000$ vs. $\$20,000$, $p = .001$ per Mann-Whitney U), but were equally likely to be single (83% vs. 77%).

Measures

Demographic form—This measure obtained information such as age, self-identified sexual orientation, race, relationship status, years of education, and yearly income.

Male Role Norms Scale (MRNS; Thompson & Pleck, 1986)—The MRNS is a 26-item inventory that assesses men's endorsement of three dimensions of masculine ideology: Status (e.g., "A man must stand on his own two feet and never depend on other people to help him do things"), Toughness (e.g., "A good motto for a man would be 'When the going gets tough, the tough get going'"), and Antifemininity (e.g., "It bothers me when a man does something that I consider 'feminine'"). This tri-dimensional factor structure has been supported by both exploratory and confirmatory factor analyses (Thompson & Pleck, 1986; Sinn, 1997). Participants rated each item from 1 (strongly disagree) to 7 (strongly agree),

with higher scores reflecting more traditional adherence to these gender role norms. The Status, Toughness, and Antifemininity subscales are represented with 11, 8, and 7 items, respectively; individual scores were computed as the mean of the appropriate items; and internal consistency alphas for this sample were .77, .63, and .72, respectively. Standardized skew for each subscale was less than 2. While other measures exist that assess adherence to these and additional masculine norms (e.g., Conformity to Masculine Norms Inventory: Mahalik et al., 2003), the MRNS was selected to enable a direct replication and extension of prior research.

Attitudes Toward Lesbians and Gay Men Scale (ATLGS; Herek, 1988)—Sexual prejudice toward lesbians and gay men was assessed with this 20-item Likert-type scale. Participants rated each item on a scale from 1 (strongly disagree) to 9 (strongly agree), with higher scores representing more negative attitudes toward gay men and lesbians. Sample items include “I think male homosexuals are disgusting” and “Female homosexuality is detrimental to society because it breaks down the natural divisions between the sexes.” This scale has been administered widely and been shown to be both reliable and valid (Herek, 2000b). Per recommendations of Herek (1988), individual scores were computed as the mean of the 20 items. In the present sample, internal consistency alpha was .93 and standardized skew was less than 2.

Masculine Gender Role Stress Scale (MGRSS; Eisler & Skidmore, 1987)—This 40-item Likert-type scale assessed participants’ tendency to appraise as stressful situations that conflict with the traditional male gender role. Participants rated items on a scale from 0 (not at all stressful) to 5 (extremely stressful), with higher scores reflecting higher masculine gender role stress. For example, items asked participants to rate how much stress they would feel if they were “comforting a male friend who is upset,” “perceived as having feminine traits,” “asking for directions when lost,” or “with a woman who is more successful.” Although masculine gender role stress is related to masculine ideology (Walker, Tokar, & Fischer, 2000), this construct is a “unique and cohesive construct that can be measured globally” (Walker et al., 2000, p. 105). In the present sample, individual scores were computed as the per item mean of the 40 items. Internal consistency alpha was .92 and standardized skew was less than 2. This scale was selected over other measures of gender role conflict to enable a direct replication and extension of prior research.

Self-Report of Behavior Scale – Revised (SBS-R; Roderick et al., 1998)—This 20-item written Likert-type scale assesses the frequency of negative behaviors displayed against male and female sexual minorities in one’s lifetime. Participants rate each item on a scale from 1 (never) to 5 (always), with higher scores indicative of more frequent use of negative behaviors toward sexual minorities. The authors reported that a factor analysis yielded separate avoidance and aggression subscales. However, in accordance with Parrott and Peterson (2008), the aggression subscale was revised to eight items for use in the present study. Past research with this revised subscale has obtained internal consistency coefficients that exceed .70 (Parrott & Peterson, 2008; Vincent et al., in press). An internal consistency coefficient of .72 was obtained in the present study. Individual scores were computed as the per item mean, but because their standardized skew exceeded 3, they were recoded 1–6 as follows: 1=1, 2=1.125, 3=1.25, 4=1.375, 5=1.5–1.625, 6=1.75 or higher. This recode resulted in a standardized skew well below 2.

Antigay Behaviors Inventory (ABI; Franklin, 2000)—This 89-item inventory assesses participants’ self-reported lifetime frequency of engaging in aggression toward male and female sexual minorities, descriptions of specific incidents, and motivations for engaging (or not engaging) in aggression toward sexual minorities. Of particular interest to

the current study, participants were asked during a verbal interview to report the frequency in which they had engaged in any of the 12 specific aggressive acts (e.g., “How many times have you called a homosexual man or woman an insulting name?” or “How many times have you hit, kicked, or beaten up a homosexual man or woman?”). Participants were coded “1” if they reported engaging in at least one act of aggression against sexual minorities during their lifetime, whereas participants who denied engaging in any aggression toward sexual minorities were coded “0.”

Procedure

The study took place on the campus of a large urban university in Atlanta, GA. Upon arrival to the study, all participants provided informed consent. With the exception of the ABI, all measures were then self-administered on a computer using MediaLab 2000 software (Empirisoft Research Software, Philadelphia, PA). Next, a trained, male interviewer administered the ABI as a structured interview. Upon completion of the study, participants were debriefed, compensated with \$25, and thanked.

Results

Descriptive Statistics

Means, standard deviations, and ranges for the pertinent variables are given in Table 1 along with their correlations. The associations between status and aggression (as measured by the SBS-R and ABI) were small and not significant, but the remaining correlations were all significant, $p < .05$. Although none were strong, 13 of the 21 correlations were over .30, indicating moderately sized associations (Cohen, 1988).

Data Analyses

Overview—To determine whether the effect of adherence to male gender role norms (i.e., status, toughness, and antifemininity) on aggression toward sexual minorities was accounted for by sexual prejudice, masculine gender role stress, or both, we employed path analysis (Kline, 2005; Tabachnick & Fidell, 2007). Path coefficients were estimated with LISREL 8.5 (Jöreskog & Sörbom, 2001) and were estimated using the maximum likelihood method. Unlike regression approaches, a structural equation modeling (SEM) program like LISREL provides goodness of fit statistics for the entire model. With SEM, outcome (endogenous) variables should be interval scaled, and we recognize that aggression variables derived from the SBS-R and the ABI were ordinal and binary, respectively. Nevertheless, we believe that SEM is both appropriate and desirable for several reasons. First, distributions for both aggression variables were reasonable (standardized skews were 0.38 and 1.72 for aggression as derived from the SBS-R and ABI, respectively). Second, and importantly, additional analyses using multiple and logistic regression to estimate path coefficients gave us essentially the same results as those reported here. Third, using SEM lets us gauge the overall fit of each model and, moreover, maintains comparability with earlier reports (Parrott, 2009; Parrott et al., 2008).

Models Tested—For each aggression variable, we considered three hierarchical models. In the first model, adherence to male gender role norms predicted sexual prejudice, masculine gender role stress, and aggression, but neither sexual prejudice nor masculine gender role stress predicted aggression (i.e., sexual prejudice and masculine gender role stress were not tested as intervening variables). The second model made sexual prejudice an intervening variable (i.e., added path from sexual prejudice to aggression, but masculine gender role stress still did not predict aggression), and, in similar fashion, the third model added masculine gender role stress as the second intervening variable. Results for both aggression variables, which correlated only moderately ($r = .44$), were similar. Specifically,

for aggression toward sexual minorities as measured by the SBS-R and ABI, respectively, the first model did not fit well. Adding sexual prejudice resulted in a model that fit reasonably well. However, adding masculine gender role stress caused fit to deteriorate (see Table 2).

These data suggest that sexual prejudice, but not masculine gender role stress, accounted for the relation between adherence to male role norms and aggression toward sexual minorities. Adding masculine gender role stress to the model actually caused worse fit. Indeed, only in the second model for each aggression variable were the normed chi-square statistics below 3 and the RMSEA below .10 as recommended by Kline (2005). Moreover, when masculine gender role stress was added, the path coefficients from masculine gender role stress to both aggression variables were small and statistically nonsignificant ($\beta = .07$ and $\beta = -.03$). Accordingly, coefficients we report subsequently are based on the second model which included sexual prejudice as the sole intervening variable (corresponding coefficients for sexual prejudice in the second and third models were essentially identical).

Path coefficients are shown in Figure 1 and total, direct, and indirect effects are summarized in Table 3. Results were essentially the same for aggression as measured by both the SBS-R and ABI. The indirect (i.e., via sexual prejudice) effect of status was positive and statistically significant, whereas the direct effect was not statistically significant and negative. Both direct and indirect effects of toughness were not statistically significant. In contrast, both direct and indirect effects of antifemininity were positive and statistically significant, with 23% of the total effect for both outcomes accounted for by sexual prejudice (i.e., .08/.35 and .07/.30).

Moreover, models estimated separately for African American and non-Hispanic White participants were not significantly different. The two-group model with paths constrained to be the same for both groups fit reasonably well ($\chi^2[17, N = 192] = 21.72$ and $21.37, p = .20$ and $.21$, normed $\chi^2 = 1.28$ and 1.26) and the increase in goodness-of-fit when paths were allowed to differ was not significant ($\chi^2[10, N = 192] = 10.96$ and $10.57, p > .05$), for SBS-R and ABI, respectively. Notably, African American and non-Hispanic White men differed by age, education, and income, and African American men scored higher than non-Hispanic White men on status, toughness, and sexual prejudice (see Table 4). Nonetheless, the nonsignificant two-group analysis suggests that these demographic variables had little effect on the results.

In sum, consistent with Hypothesis 1, sexual prejudice (but not masculine gender role stress) accounted for the effects of status and antifemininity (but not toughness) on aggression toward sexual minorities as assessed with two different methods: a self-administered written questionnaire and a structured verbal interview. Consistent with Hypothesis 2, stronger endorsement of the antifemininity norm was (a) directly associated with perpetration of aggression toward sexual minorities, and (b) indirectly associated with perpetration of aggression toward sexual minorities via higher levels of sexual prejudice. These direct effects of antifemininity were about three times larger than their indirect effects. In addition, stronger endorsement of the status norm was indirectly, but not directly, associated with perpetration of aggression toward sexual minorities via higher levels of sexual prejudice.

Discussion

The present study indicates that (a) strong adherence to traditional norms of masculinity, particularly the status and antifemininity norms, is a key determinant of aggression toward sexual minorities, and (b) sexual prejudice accounts for these effects. These results support the first hypothesis, are consistent with theoretical formulations of gender role enforcement

(e.g., Herek, 1986; Franklin, 1998), and corroborate work implicating sexual prejudice as a key intermediate variable in the relation between adherence to male gender norms and aggression toward sexual minorities (e.g., Parrott, 2009; Parrott et al., 2008). These findings are compelling because, unlike previous studies in this area, multiple measures were employed to assess aggression in a diverse, community sample of young men. Because prior research relied exclusively on college samples, the extent to which findings obtained from these studies extend to nonprobability community samples has been unclear. The present study addresses this limitation, although it is clear that these associations need to be tested in probability samples. In addition, the use of a written and verbal self-report measure of aggression yielded the same pattern of findings, despite only a moderate correlation between these measures. Indeed, convergent validity is demonstrated by correlations between measures of the same construct, particularly when different methods of assessment are employed. Finally, because participants provided retrospective accounts of their own aggressive behavior, results provide preliminary evidence that relations between adherence to male role norms, sexual prejudice, and aggression toward sexual minorities observed in laboratory settings (e.g., Parrott, 2009; Parrott & Zeichner, 2008) transfer to real-life settings. As future work confirms the generalizability of these effects in representative samples, an empirical foundation for the development of behavioral and social interventions aimed at reducing these attacks will be established.

In support of the second hypothesis, endorsement of the antifemininity norm exerted the strongest direct and indirect effects on aggression toward male and female sexual minorities. In particular, the direct effect of antifemininity on aggression (SBS-R: $\beta = .27$; ABI: $\beta = .23$) was about three times larger than the indirect effect mediated by sexual prejudice (SBS-R: $\beta = .08$; ABI: $\beta = .07$). This finding has potentially important implications for understanding the fundamental motivations for aggression toward male and female sexual minorities. First, while aggression toward male and female sexual minorities based on enforcement of an antifeminine gender role is clearly motivated by sexual prejudice, strong adherence to this cultural norm of masculinity seems to pose an even greater risk. Second, the roots of masculinity are not grounded in gender alone, as heterosexuality is also an integral part of this ideal (Herek, 1986). Thus, heterosexual men who adhere strongly to the antifemininity norm may segregate and attack any sexual minority individual (i.e., regardless of perceived gender) as the non-masculine “other” (Kimmel, 2000). However, because masculinity is more rigidly defined than femininity (Vandello, Bosson, Cohen, Burnaford, & Weaver, 2009), male sexual minorities are more likely to be seen as violating gender norms. This literature suggests that while the present findings apply to both male and female sexual minorities, stronger effects would likely be observed for male sexual minority targets. Future research is needed to test this hypothesis.

Importantly, the present data challenge the role of masculine gender role stress in the perpetration of aggression toward sexual minorities. Some studies support an association between masculine gender role stress and the perpetration of aggression toward sexual minorities (Talley & Bettencourt, 2008; Vincent et al., in press). However, research offers only mixed support for masculine gender role stress as an intermediate variable in the association between male role norms and negative responses toward sexual minorities (e.g., Parrott, 2009; Parrott et al., 2008). Consistent with Parrott (2009), the present results do not support masculine gender role stress as a significant variable in this pathway. Finally, some studies suggest that sexual prejudice is more prevalent in the African American community (e.g., Lewis, 2003). The present findings support this research, although it appears that functional relationships between masculinity, sexual prejudice, and the aggression toward sexual minorities do not differ by race.

Implications

Coupled with findings from prior studies with college samples, results obtained from this nonprobability sample of men in Atlanta, GA offer potential suggestions for much needed intervention programs directed at the individual level and applied research to reduce aggression toward sexual minorities. In broad terms, intervention programming and preventative intervention studies must aim to reduce sexual prejudice and facilitate less stereotypic attitudes about the male gender role, particularly surrounding the antifemininity norm. More specifically, interventions should aim to reduce sexually prejudiced attitudes and attitudes that function to reinforce traditional norms of masculinity. While a variety of possible behavioral intervention strategies have been reviewed elsewhere (e.g., Parrott & Miller, 2009), one approach merits particular attention. A substantial research literature (e.g., see Allport, 1954; Pettigrew & Tropp, 2000) indicates that intergroup bias may be attenuated by increasing structured interactions between in-group (e.g., heterosexual) and out-group members (e.g., sexual minority). Indeed, research has consistently demonstrated that individuals who report knowing someone who is gay or lesbian report lower levels of sexual prejudice (Herek & Capitanio, 1996; Herek & Glunt, 1993). Thus, it seems that interventions designed to reduce sexual prejudice and delivered at the individual level must incorporate structured intergroup contact (see Dovidio et al., 2004).

Limitations

Several limitations of the present study deserve mention. First, this study utilized a cross-sectional design that limits conclusions regarding mediation and the causal ordering of variables under investigation. Longitudinal designs are the ideal to address this limitation. Second, while recruitment of a nonprobability community-based sample of men in Atlanta, GA is a strength of this study, research with probability samples is still needed to better inform intervention programming. Indeed, research with probability-based samples will be a decisive step forward in establishing the generalizability of laboratory and field studies to the rest of the male population. Third, the present study was unique in that aggression toward sexual minorities was assessed via a self-administered written questionnaire and a structured, verbal interview. However, the stability and validity of these findings can be strengthened by obtaining assessments of aggression in multiple modalities (e.g., self-report, behavioral) within the same study (Campbell & Fiske, 1959). Fourth, outcome measures did not identify the gender of the sexual minority victims. Thus, the present study could not determine whether the pattern of findings applied similarly (or differently) to male and female sexual minority targets.

Conclusion

The present study represents a first step toward informing intervention efforts for aggression toward sexual minorities. These data from a racially diverse sample in a large metropolitan area in the southeastern United States point to several critical determinants of aggression based on sexual orientation, especially when considered along with prior research in this area. Findings lend support to the view that the promotion of egalitarian gender role beliefs and the reduction of sexual prejudice may facilitate the reduction of aggression toward sexual minorities. Future research is needed to examine these associations at the societal level, as any sustained individual change is likely best achieved through social and cultural messages that condemn sexual prejudice and normalize less rigid norms of masculinity.

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Figure 1.

Path diagrams showing effects of adherence to male gender role norms on aggression measured by the Self-Report of Behavior Scale – Revised (SBS-R, top) and Antigay Behavior Inventory (ABI, bottom) as accounted for by sexual prejudice but not masculine gender role stress. Standardized path coefficients were computed with a structural equation modeling program (LISREL). $N = 199$.

** $p < .01$

Table 1

Descriptive Statistics and Intercorrelations for Key Variables

Variable	Descriptives					Correlations					
	# items	scale	<i>M</i>	<i>SD</i>	range	1.	2.	3.	4.	5.	6.
1. Status	11	1–7	4.80	1.07	2.1–7.0	—					
2. Toughness	8	1–7	4.27	1.06	1.0–7.0	.45	—				
3. Antifemininity	7	1–7	3.20	1.17	1.0–6.1	.20	.44	—			
4. Sexual prejudice	20	1–9	4.03	1.94	1.0–8.6	.41	.35	.41	—		
5. MGRS	40	0–5	2.15	0.79	0.2–4.3	.14	.29	.44	.31	—	
6. SBS-R Aggression	8	1–5	3.44 ^a	1.80	1.0–6.0	.13	.30	.42	.37	.28	—
7. ABI Aggression	—	—	0.43	0.50	0.0–1.0	.09	.21	.34	.31	.16	.44

Note. *N* = 199. MGRS = masculine gender role stress; SBS-R Aggression = Aggression toward sexual minorities measured by the Self-Report of Behavior Scale –Revised; ABI Aggression = Aggression toward sexual minorities measured by the Antigay Behaviors Inventory; $p < .05$ for all correlations except between status and SBS-R Aggression and between status and ABI Aggression.

^aRecoded 1–6.

Table 2

Model Statistics

Variable(s) added to intervening path	SBS-R Aggression							ABI Aggression						
	χ^2	df	p	χ^2/df	RMSEA	(90% CIs)	CFI	χ^2	df	p	χ^2/df	RMSEA	(90% CIs)	CFI
No variable added	16.00	3	.001	5.34	.150	(.087–.230)	.95	12.20	3	.007	4.07	.120	(.055–.200)	.96
Sexual prejudice	5.15	2	.076	2.58	.089	(.000–.190)	.99	4.27	2	.120	2.14	.076	(.000–.180)	.99
Sexual prejudice & MGRS	3.95	1	.047	3.95	.170	(.001–.240)	.99	4.13	1	.042	4.13	.130	(.018–.260)	.99

Note. $N = 199$. SBS-R Aggression = Aggression toward sexual minorities measured by the Self-Report of Behavior Scale – Revised; ABI

Aggression = Aggression toward sexual minorities measured by the Antigay Behaviors Inventory; MGRS = masculine gender role stress; χ^2/df = the normed chi square, RMSEA = root mean square error of approximation, and CFI = comparative fit index.

Table 3

Total, Direct, and Indirect Effects of Status, Toughness, and Antifemininity on Aggression Toward Sexual Minorities

Variable	SBS-R Aggression			ABI Aggression		
	Total	Direct	Indirect	Total	Direct	Indirect
Status	– .01	– .09	.08**	.00	– .07	.07*
Toughness	.16*	.14	.02	.09	.06	.02
Antifemininity	.35**	.27**	.08**	.30**	.23**	.07*

Note. $N = 199$. SBS-R Aggression = Aggression toward sexual minorities measured by the Self-Report of Behavior Scale – Revised; ABI Aggression = Aggression toward sexual minorities measured by the Antigay Behaviors Inventory.

*
 $p < .05$,

**
 $p < .01$

Table 4

Correlations between Demographic and Key Variables

Variable	Demographics				
	Age	Years education	Marital status ^c	Income	Racial Group ^d
Status	.12	– .33**	– .09	– .13	.40**
Toughness	.02	– .13	.06	– .06	.21**
Antifemininity	– .07	.01	.18*	.23**	– .05
Sexual prejudice	.14*	– .12	– .04	– .07	.38**
MGRS	– .06	.02	.13	.07	.05
SBS-R Aggression ^a	.00	– .11	.07	.01	.00
ABI Aggression ^b	.04	– .21**	– .01	– .09	.14

Note. $N = 199$ (192 for racial group). MGRS = masculine gender role stress; SBS-R Aggression = Aggression toward sexual minorities measured by the Self-Report of Behavior Scale – Revised; ABI Aggression = Aggression toward sexual minorities measured by the Antigay Behaviors Inventory. Correlations are Spearman rho due to skewed distributions for education and income.

^a Recoded 1–6

^b Coded 0 = no report of aggression, 1 = reported engaging in at least one act of aggression against sexual minorities during their lifetime

^c Coded 0 = married, partnered, widowed, divorced, separated; 1 = single, never married.

^d Coded 0 for non-Hispanic White and 1 for African American

* $p < .05$,

** $p < .01$